

## REMARKS

Claims 1-4 and 6-13 are pending herein.

### I. Allowed claims 8-10.

Applicants respectfully thank the Examiner for indicating allowed claims 8-10.

### II. The obviousness rejections based on Shirakawa (US 6,953,245) in view of Inaba (JP 11-208069).

The USPTO respectfully rejects claims 1-2, 6-7, and 11-13 under 35 U.S.C. § 103(a) as being obvious over Shirakawa in view of Inaba. Claim 1 is an independent claim.

#### A. The cited references do not teach or suggest a protection member placed between a recording head and a recording medium, as claimed in claim 1.

Regarding the limitations of claim 1 that claim in relevant part:

the protection member is further placed **between the recording head and the recording medium. (emphasis added)**

it is respectfully not seen where the cited references teach or suggest the claimed structure.

Specifically, Figures 2A and 2B of Shirakawa show printing head 10, radiation units 20-1, 20-2, paper P, and shutters 22. As clearly seen in Figures 2A and 2B of Shirakawa, **shutters 22 are found between the radiation units 20-1, 20-2 and paper P.** In contrast, **there is nothing in the space between printing head 10 and paper P in Shirakawa.** Thus, it is respectfully asserted that Shirakawa does not teach that the protection member is placed between the recording head and the recording medium, as claimed in claim 1. Therefore, the USPTO has made a clear technical error. Furthermore, it is respectfully asserted that Inaba does not overcome this deficiency in Shirakawa, as Inaba does not teach or suggest a protection member, as it is only cited to teach an error detection means.

In contrast, present Figure 6b illustrates one example of the claimed structure quoted above. As clearly seen in present Figure 6b, **protection member 18 is placed between recording heads 4 and the recording medium P** (see also present Figure 5), as specifically

claimed in claim 1. Thus, as noted on page 25 of the present specification, recording heads 4 are protected from being damaged by a jammed recording medium. Thus, protection member 18 is an important feature.

In other words, the structure claimed in claim 1 of the present application is respectfully technically different from the structure taught or suggested in Shirakawa. For example, it is respectfully important to compare present Figure 6(b) with Figures 2A and 2B of Shirakawa. As seen in present Figure 6B, **protection member 18 is located between the recording medium P and the recording heads 4, thus protecting recording heads 4.** In contrast, in Figures 2A and 2B of Shirakawa, nothing is placed between recording head 10 and recording medium 11. Thus, **recording head 10 of Shirakawa is always exposed to recording medium P and can be damaged if the recording medium jams.** Therefore, this is an important distinction that matter.

Thus, it is respectfully asserted that the cited references, taken either alone or in combination, do not teach or suggest all the claimed limitations of claim 1. Therefore it is respectfully asserted that claim 1 is not obvious over the cited references.

**B. The USPTO does not use the “plain meaning” or dictionary definition of the word “between” with respect to claim 1.**

The USPTO respectfully attempts to overcome the deficiency in the cited references noted above in part A by alleging an incorrect definition of the word “between.” For example, on page 7 of the Office Action, the USPTO respectfully argues that:

“[T]he limitation that ‘the protection member is further placed between the recording head and the recording medium’ is met by the Shirakawa reference, since the shutters 22 are at a vertical position that is between the recording head and the recording medium. Please note Figure 2 of Shirakawa which shows the shutters 22 positioned below the printing head 10 and above the paper P.”

However, it is respectfully noted that during examination words of a claim must be given their “plain meaning” (see MPEP 2111.01 I, citing *In re Zletz*, 893 F.2d 319, 321; 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)). Furthermore, the United States Court of Appeals for the Federal Circuit has recognized that “[d]ictionaries . . . are often useful to assist in

understanding the commonly understood meaning of words.” (see *Phillips v. AWH Corp.*, 415 F.3d 1503, 1322 (Fed. Cir. 2005)).

In the context of the present application, the USPTO respectfully does not properly apply the “plain meaning” or dictionary definition of the word “between.” For example, the dictionary definition of “between” is “in the space separating (two points, objects, etc., e.g. between New York and Chicago).”

Thus, in an apparatus according to claim 1, **the protection member is placed in the space separating the recording head and the recording medium.** In present Figure 6B, for example, the space separating the recording head and the recording medium is located directly below recording heads 4. Thus, as seen in present Figure 6B, **protection member 18 is in this space directly below recording head 4.** Therefore, protection member 18 is “between” the recording head and the recording medium, as claimed in claim 1.

In contrast, in Figures 2A and 2B of Shirakawa, the space separating the recording head and the recording medium is directly below recording head 10, i.e., where the arrows are located. Also, as the USPTO respectfully admits on page 3 of the Office Action, “**shutters 22 are not directly underneath the recording head 10.**” In other words, **shutters 22 of Shirakawa are not in the space separating recording head 10 and recording medium P.** Instead, shutters 22 of Shirakawa are horizontally displaced from the interval separating the recording head and the recording medium. Thus, Shirakawa does not teach or suggest that a protection member is placed “between” recording head and the recording medium, as understood by the “plain meaning” of the word “between.”

The USPTO respectfully alleges on page 7 of the Office Action that because shutters 22 of Shirakawa are in a vertical position below recording head 10 and above paper P, that shutters 22 are “between” the recording head and the recording medium. It is noted that ink ejection portions 11 of recording head 10 appear to be in the same horizontal plane as shutters 22, so the shutters 22 do not appear to be easily identified as “below” the printing head 10 as the USPTO respectfully alleges. Also, it is respectfully asserted that the USPTO uses an incorrect definition of “between” that goes beyond the “plain meaning” of the word. For example, as noted above, **shutters 22 are horizontally displaced from the space separating**

recording head 10 and recording medium P, and thus shutters 22 are not “between” the recording head and the recording medium.

Thus, it is respectfully asserted that the cited references, taken either alone or in combination, do not teach or suggest the claimed structure quoted above. Therefore, it is respectfully asserted that claim 1 is not obvious over the cited references.

C. Further explanation.

Applicants respectfully note the following further explanation regarding the cited references.

Specifically, in Shirakawa, a shutter is provided in order to prevent the mist of the ink from adhering to the light source. However, Applicants respectfully note that Shirakawa does not disclose that the shutter is closed when the media error is detected.

In other words, in Shirakawa, when the light sources are provided at both ends of the printing head, as seen in Figures 1A and 1B, the shutter on the light source located on the rear side with respect to the scan direction (i.e., the shutter on the light source toward which the mist flows) is closed. On the other hand, the other light source radiates light.

Furthermore, when the light source is provided at one end of the printing head, as seen in Figures 3A and 3B of Shirakawa), the shutter is closed when the mist flows toward the light source in order to prevent the mist from adhering to the light source. When the light source is positioned in front with respect to the moving direction of the printing head, the light source radiates light.

Thus, does not disclose that the media error of the recording medium is detected, as noted by the USPTO on page 3 of the Office Action. Therefore, Shirakawa does not disclose that the conveyance mechanism stops conveying the recording medium when an error is caused. Furthermore, it is not disclosed how the shutter is placed when the conveyance mechanism stops conveying the recording medium.

Inaba allegedly teaches that the conveyance of the recording medium is stopped when an error is detected. However, Applicants respectfully believe that neither Shirakawa nor Inaba disclose that the protection member is placed between the light source and the recording medium when the conveyance of the recording medium is stopped.

Thus, Applicants respectfully believe that claim 1 is not obvious over the cited references.

D. The dependent claims.

As noted above, it is respectfully asserted that independent claim 1 is allowable, and therefore it is further respectfully asserted that dependent claims 2, 6-7, and 11-13 are also allowable.

III. The obviousness rejection based on Shirakawa in view of Inaba and further in view of Markham (US 5,051,758).

The USPTO respectfully rejects claim 3 under 35 U.S.C. § 103(a) as being obvious over Shirakawa in view of Inaba and further in view of Markham. As noted above, it is respectfully asserted that independent claim 1 is allowable, and therefore it is further respectfully asserted that dependent claim 3 is allowable.

IV. The obviousness rejection based on Shirakawa in view of Inaba and further in view of Villaverde (US 5,595,118).

The USPTO respectfully rejects claim 4 under 35 U.S.C. § 103(a) as being obvious over Shirakawa in view of Inaba and further in view of Villaverde. As noted above, it is respectfully asserted that independent claim 1 is allowable, and therefore it is further respectfully asserted that dependent claim 4 is allowable.

V. Conclusion

Reconsideration and allowance of all of the claims is respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Please contact the undersigned for any reason. Applicants seek to cooperate with the Examiner including via telephone if convenient for the Examiner.

Respectfully submitted,

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